(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 27 May 2004 (27.05.2004)

(10) International Publication Number WO 2004/044584 A1

(51) International Patent Classification7: G01N 33/542. 33/566, 33/569, C07K 16/28, G01N 15/14

(21) International Application Number:

PCT/EP2003/012664

(22) International Filing Date:

12 November 2003 (12.11.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

02025335.7

13 November 2002 (13.11.2002)

(71) Applicant (for all designated States except US): MI-CROMET AG [DE/DE]; Staffelseestrasse 2, 81477 München (DE).

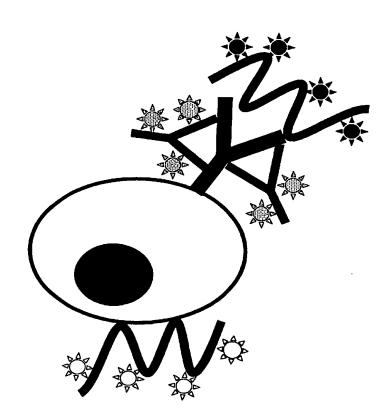
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BÄUERLE, Patrick

[DE/DE]; Waldpromenade 18C, 82131 Gauting (DE). HOFFMANN, Patrick [DE/DE]; Ludwig-März-Strasse 51, 82377 Penzberg (DE). WEINBERGER, Susanne [DE/DE]; Steirerstrasse 13, 81247 München (DE). KISCHEL, Roman [DE/DE]; Blumenstrasse 1, 85604 Zorneding (DE).

- (74) Agent: VOSSIUS & PARTNER; Siebertstrasse 4, 81675 München (DE).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: METHOD FOR IDENTIFYING ANTIGEN SPECIFIC B CELLS



(57) Abstract: The present invention relates to a method of identifying a B cell carrying a surface immunoglobulin molecule having a binding site for an antigen of interest comprising contacting a sample putatively containing said B cell with the antigen of interest wherein said antigen is labeled with a first label and with a receptor specifically binding to said surface immunoglobulin molecule wherein said receptor is labeled with a second label and wherein said first label, when being brought into a spatial proximity of between 10 and 100 Angstrom with said second label emits a detectable signal upon activation of said second label by an external source and assessing the presence of said detectable signal, wherein said presence is, in turn, indicative of the B cell carrying a surface molecule having a binding site for the antigen of interest.